User Manual

Ver. VD3000E 1.0E

VISIONDRIVE™

CAR BLACK BOX

VD-3000

INDEX

1. **Before Use** 2
2. **Caution** 3
3. **Product Structure** 6
4. **Part Names** 7
5. **Product Specification** 8
6. **Installation Precautions** 9
7. **Installation Sequence** 10
8. **Intallation Procedure** 11
9. **Product Use** 20
10. **Analysis Program Use** 29
11. **Warranty** 38

Before Use

Thank you for choosing this product.
The following contents describe the responsibility scope of the warranty service covered by us and the product cautions.
Before you use, full knowledge of the product is recommended before using.

■ Warranty Service and Responsibility Scope

We shall not held responsible for the damages caused by errors or data loss of this product, as well as any damages or losses derived from the condition.

VD-3000 is designed to record, store, play and analyze the videos incurred by impacts and car accidents or recorded by user's discretion. However, it is not assured that the product will record all videos in every environment.

Furthermore, under circumstances where the impact is too weak, the vibration sensor may not be able to detect the impact, which induces that the system will be unable to automatically start recording the [Event] file. In such a situation, the urgent save button (SHOT) on the Vision Drive should be pressed to start recording a video to the [Event] folder.

The information on this manual can change without notice due to technological upgrades. Check for updates periodically to ensure full knowledge of both the warranty service and responsibility scope.

Caution

- **The Vision Drive SD card** is the only usable SD card for Vision Drive. In case of a lost or stolen SD card, please contact your local retail shop to purchase a replacement.

- **If a damaged or a non Vision Drive SD card is used, the recorded data maybe damaged or will not record and/or replay due to difference in quality.**

- Do not disassemble or remodel this product. It can cause an electric shock. Any malfunctioning after such action will be cased due to unfitting use of the product and no warranty service shall be provided. Consult the retailer for product maintenance and repairs if necessary.

- Only use adaptors with the appropriate specification. Not doing so will result in defecting the product or cause fire.

- Using enclosed cables for other uses than advised will result in defect or fire. All wiring should be carefully implemented so the cable may not be damaged.

- Under the circumstances where the product is wired to the power supply of the vehicle directly or if the cigar jack is connected to the power supply while the engine is off, make sure to disengage the device to prevent battery outage for your vehicle.

- When installing the device to your vehicle, follow all the procedures and make sure the hold is secure. Unclean surface will weaken the adhesive strength and can damage the product if it drops due to weak adhesion.

- This product is not waterproof. Make sure to avoid liquids and impurities entering the product..

Caution

- Do not use chemicals or detergents to clean the device. This can result in product malfunctioning.

- Cumulation of impurities on the camera lense or the window surface near the camera may result in distortion and reduced clarity of recorded data. These places should always be kept clean.

- Excessive tinting on the window may distort or reduce clarity of recorded data.

- Note that due to the use of camera on the product, recording can be distorted under the condition that brightness suddenly changes such as passing through a tunnel, direct sunlight reflection on day time or where no light is available at night time.

- If not enough light is available, using fog light may help record better data.

- In case of an accelerated impact, the product may not be able to record automatically. In such a case, please use the (SHOT) button to record manually.

- If you eject the SD card while the product is on, the recorded data may be damaged. Make sure the main power is completely off before removing the SD card from the product.

- **Operating the product while driving is risky and may cause an accident. Any operation should be done off the road inside a stopped vehicle.**

Caution

- Dropping or giving an impact on the product during operation can cause defect or fire.
- Do not keep the product in an extreme temperature or in humid areas. Being under extreme heat in summer days or freezing cold in winter days may result in defection of the product. Also, do not expose the product to direct fire or water.
- In case of disassembly of the product, turn off the power completely. Disassembly without caution may result in product defect.
- Keep the SD card in its case while carrying or placing off the product. Static electricity or other environmental elements can damage the recorded data.
- SD card is an expendable supply. After normal period of usage, the partial memory sector may be damaged which will disable any recording of data. The system installed on the SD card provide an automated checking function. If use of the function is not stabilizing the system installed on the SD card, we recommend purchasing a new SD card for recording data.
- **If the SD card is ejected or the system is turned off while recording, copying or deleting a data, stored data may be lost or damaged. In a worst case scenario, the SD card may become defective.**
- We, the company, are not responsible for loss or destruction of stored data.
- Copy and keep important data on other data storages such as hard disk, CD, portable flash memory.

Product Structure

The manual and/or quick guide maybe provided on a digital file.
Product setting may change anytime without notice.

Vision Drive Unit

Attach Bracket

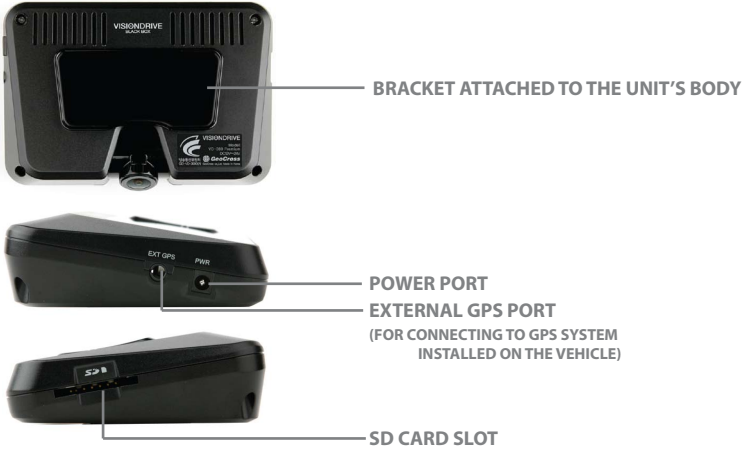
SD Card
(VD Analyzer Software
User Manual PDF)

Wire holders

Cigar Jack Power Adaptor

Part Names

■ For models with LCD screen



Product Specification

Camera	1 Camera (1.3 Mega Pixel CMOS digital camera) - Angles : 156˚ (Horizontal 120˚, Vertical 90˚) - Rotation : Top to Bottom 60˚
Resolution	1280x690 (HD) 15 frame/sec. Maxium 640x480 (VGA) 30 frame/sec. Maxium
LCD	2.4 inch Full color TFT LCD
GPS	Internal GPS Module
Impact Sensor	Internal 3G Sensor (x-y-z, Impact/Sudden Exceleration, Deceleration and Turn)
Memory	SD Memory Card (SDHC GBs : 4GB to 32GB)
Sound Recording	Internal Mike
Voice Notification	Internal Speaker
Power	12V ~ 24V (Cigar Jack)
Operatable Power	8V ~ 32V
Consumption	2.4W
Operatable Temp	-20˚ to 65˚
Memory Efficiency	Event File : 10 seconds prior to impact, 15 to 60 seconds after the impact (Multiple impact may lengthen the recorded time) Normal File : 5 minutes per file
Buttons	PLAY / VIEW / SHOT
Emergency Power	EDLC
Minimum Light	1 Lux
Dimensions	111mm x 75mm x 27mm (excluding the bracket)
Weight	129g (excluding the bracket)
PC Requirements	CPU : Pentium4 or higher (CPU 2GHz and higher recommended) Memory : 1G or higher RAM (RAM 2G and higher recommended) OS system : Window XP/VISTA/WIindows 7

Installation Precautions

For safe installation and use, read all the information provided below.

For the intial use, do not disconnect power supply till the system boots completely.
Be aware of engine ignition for it momentaly disconnects power.

- This product only uses Vision Drive SD card.
  (The program is installed in the SD card for the product to function properly.)
- Intall the product after parking the vehicle in a bright and safe area.
- Intall after ignition is off, especially after the power source has been turned off completely.
- Use the power cable provided in with the product for the cigar jack connection for power range of DC12V to DC24V. If wiring is involved, we recommend using a professional for the installation.
- Prior to the installation, clean the area of the installation where the camera will be positioned.
- **Do not eject the SD card while the product is in operation.**
- Disassemble only after the power is turned off completely.
- Do not disassemble or make alteration to the product.

Installation Sequence

1. **Connect the bracket and the unit**
2. **Insert SD card into the unit**
3. **Connect cable and attach on windshield**
4. **Connect to power source and turn on the unit**
5. **Adjust the camera angle**
6. **Check LED lamps**
7. **Organize cable line**

Installation Procedure

1. Connect the bracket and the unit

- Place the bracket inside the groove of the unit then slide the bracket to the left to click on.
  (To remove the unit from the bracket, slide the unit to the left.)

2. Insert SD card into the unit

- After connecting the bracket and the unit, insert the SD card as shown above in the picture.
- When ejecting the SD card from the unit, turn off the main power completely, and then push in the SD card. The SD card will pop out when pushed in.
  Use of force or other methods to eject the SD card may defect the SD card.

Installation Procedure

3. Connect cable and attach on windshield

- Clean the area on the windshield where the unit will be installed.
- For the placement of the unit, it is better to place the unit closer to the center of the vehicle. If the unit is installed on the right side of the back mirror, make sure there is room to detach the unit if needed.
- The adhesive on the bracket is very strong. Partially remove the cover of the adhesive, and then use the full adhesive part later for place adjustment. For models with LCD, connect the unit to the power source then proceed to attach to the windshield.
- Connect to the cigar jack after all the cable is connected and the attachment is finished with the unit.

4. Connect to power source and turn on the unit

- Insert the cigar jack into an appropriate outlet then turn on the engine. When the power is on, the LCD screen will turn on and a voice notification will be announced.

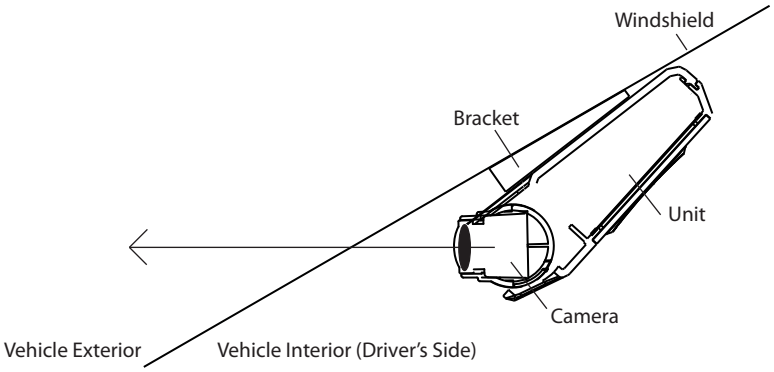
- Blinking of LED lamps notifies that the system booting has ended.

- **Do not turn off the power source while the system booting is in progress. This can damage the product.**

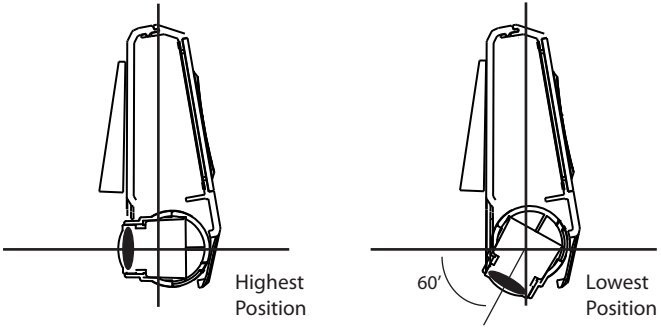
5. Adjust the camera angle

- Move the camera top to bottom to fix it to a recordable position.
- Press [VIEW] button to see the view fixed on by the camera using the LCD screen.
  After the camera position has been decided, press [VIEW] button again to turn off the viewing on the LCD screen.
  Recording is available while the LCD screen is on.
- For certain vehicles, there are restrictions on GPS signals due to metal coating on windshield or by the placement of the antenna on the vehicle. In such cases, purchasing a seperate GPS module to be installed ourside of your vehicle to have full GPS signals available for your recorded data.

Installation Procedure



- When the unit is attached, set the camera to face the front direction of the vehicle.



- Camera can be rotated to 60 degree.
  The camera rotation is set tightly to prevent loosening by minor impacts to the vehicle, so place enough pressure to set the camera angle for adjustment.

Installation Procedure

- While viewing the LCD screen or analysis program, the dashboard of the vehicle should be showing within 1/3 of the screen.

6. Check LED lamps

- The REC lamp is blue when it is recording a (NORMAL) file and red when recording into an (EVENT) folder due to an impact.
- The GPS lamp is red when the GPS signal is not connected and blue when it is connected.
- The GPS connection may take up from a couple of seconds to several minutes, depending on the location of the vehicle.

7. Organize cable line

- Use the enclosed cable holders to organize the cable line.

Product Use

Start up

- Turn off the engine and remove the key from ignition.

- Check to see if the SD card is inserted into the unit.

- Turn on the engine

- When the engine is turned on, the system booting starts with the program installed in the SD card and a voice notification will be announced. (LCD screen will turn on and show the view fixed on the camera for a few seconds and then will turn off. If you would like to record while the LCD screen is on, press [VIEW] button.)

- Then the REC and GPS lamps will start to blink.

- The REC lamp will turn blue while blinking.

- The GPS lamp will turn red if not connected and blue if connected.

- The GPS connection may take up from couple of seconds to several minutes, depending on the location of the vehicle.

Normal Recording and Event Recording

- While the power is on, the normal recording is on as well. The REC lamp will be blinking blue.

- In normal recording mode, files will be recorded into 5 minutes intervals and sent to the (NORMAL) folder. **If the memory is full while the normal recording is on, the program will erase the oldest recorded data then record the new data.**

- In the case of an impact, the sensors will trigger the event mode. An alarm will sound to notify the user. The REC lamp will be red and the recorded data will be saved in (EVENT) folder.

- When the event data is stored, the program records 10 seconds prior to the impact and up to 60 seconds after the impact. These time settings can be set manually by using the analysis program when the SD card is connected to the PC.

- The memory division between the event and the normal recording mode can be set within the analysis program. Also, the resolution of the recorded data and sensor settings can be changed within the analysis program.

Product Use

■ Manual Recording

- When the [SHOT] button is pressed, the alarm will sound and the recorded data will be saved in the (EVENT) folder.

- Even though impacts cause the black box to automatically record event files, the [SHOT] button can be used to record other accidents of others or can be used to record great scenery while traveling.

- Even while the [PLAY] button is in function, pressing the [SHOT] button will initiate an event recording.

Product Use

Viewing

- Press the [VIEW] button to view the scene that the product is recording.

- Pressing the [VIEW] button again will turn off the LCD screen. The normal recording is still in process while the LCD screen is off.

- Park your vehicle in a safe place before changing your view mode.

Product Use

Parked Surveillance Mode

- While parked, hold the [PLAY] or the Function [I] button for 3 seconds, a voice notification will notify that the parking mode has been initiated.

- In parking mode, even the slightest impact or vibration will be picked up by sensors and the sensor setting will automatically be changed.

- In parking mode, without any impact, the recorded data will be 4 frames per second. With an impact, all settings will be back to the event mode and after the recording is done, the system will get back to the parking mode.

- The parking mode does not record sounds.

- To clear the parking mode, press the [PLAY] button for 3 seconds. A voice notification will notify that the continous recording will start.

- To use the parking mode, the product has to be connected to the power source directly. **In regards to directly wiring to the vehicle's power source, we recommend using professional help and to connect it from interior wiring for lightings within the vehicle.**

- Extensive use and the continuous usage of the vehicle's power source may exhaust the performance of the product. The company is not liable for the effects of continous use of the product more than 24 hours. We recommend the full power to be off between uses of 2 to 3 days to maintain the product for longer use.

Product Use

SD Card Use

- The Vision Drive product will only work with the SD card issued from Vision Drive. VD SD cards carry programs necessary to operate the product in full. Also, the provided SD card is tested and certified by Vision Drive and other SD cards may come short to the technology and development VD SD cards can offer.

- To eject the SD card from the product, the engine has to be turned off and the key should be removed from the ignition. After the few seconds the key has been removed, the product will turn off automatically and the LED lamps will be turned off as well. **The interior EDLC allows the last images to be stored into proper folders before the product is fully turned off.**
When both the LCD screen and LED lamps are turned off, remove the SD card.

- When the SD card is removed, it needs to be reinserted before the vehicle is in motion again. Without the correct SD card, the product will not function properly.

- Use only SDHC supporting SD card readers to read the SD card.

- If a wrong or defected SD card is inserted, a voice notification will ask for a correct SD card to be inserted. If the same card is used and the same notification is given multiple times, purchase a replacement.

- When the tap is fixed to close on the SD insertion slot, a voice notification will notify you. Reset the tap to open it, and then insert the SD card into the slot.

- If a voice notification repeatedly announces to insert a correct SD card, then the SD card is defected or damaged. Purchase a replacement.

- The SD card readers can be purchased seperately at most computer accessory stores or sites.

■ Event File Replay

- When the [PLAY] button is pressed, the last event store will be played.

- While play mode is on, if you press the [VIEW] button or if you tilt the unit to the right like the demonstration below, the file prior to the most recent data is played.
By pressing the [VIEW] button multiple times or by tilting the unit to the right, you can search for the data you are specifically looking for.
(If the unit is tilted to the left, you can view from newer datas.)

- Press the [PLAY] button again to turn off the play mode and to start normal recording mode.

Voice Recording

- When the [SHOT] button is held for more than 3 seconds, the voice notification will announce that the voice recording will initiate and the voice recording will start.

- When the [SHOT] button is held again for more than 3 seconds, the voice notification will announce that the voice recording has been stopped.

- The initial setting can be changed from the analysis program on your PC.

Automatic System Check and Safe Rebooting Function

- This product is programmed to automatically check and reboot the system, if the product is in a non-functional status. By rebooting the system from the program installed on the SD card, the product can notify that such action is being taken place to the user while it is happening.

- By having the safeguard of the system in such ways, the stability of the system is ensured. If the reboot is happening too often, the program installed in the SD card may have been manipulated .
Use the format program within the SD card, sdfv2003.exe, to reformat the SD card.

sdfv2003.exe

PC Analysis Program Use

***** The skin used for the analysis program may vary by the version *****

■ Program Start Up

- After the SD card is connected to the PC, open up the VDAnalyzer.exe file.

- The initial and default password is "12345678".
However, you can change the password settings after you are logged in..

PC Analysis Program Use

■ Program Information

PC Analysis Program Use

■ How to play the files

- To play a certain file, select the file from the list located on the right side.
- The most recent data will be listed from the top.
- The (EVENT) folder will be the default folder that will show when you first open up the program. In the (EVENT) folder, all data recorded due to an impact or by pressing the [SHOT] button will be present.
- The (NORMAL) folder will have normal recording data and you may view them by clicking "open" on the analyzer.
- The names of the files are composed as the table below.
(No. separation for recording: 1-Normal, 2-Event)

Separation	Actual File Name (Search Window)	Viewer File Name (Analyzer's List)
GPS	Password-Date-Time-No. Seperation (EX.) 12345678-20090102-120102-1	Date-Time-Numeral Seperation.vd (EX.) 20090102-120102-1.vd
Failed GPS	Password-NOGPS-Password-No. Seperation (EX.) 12345678-NOGPS-12345678-1	NOGPS-Password-Numeral Seperation.vd (EX.) NOGPS-12345678-1.vd

- Number separation is divided into two groups - 1 and 2. 1 is for normally recorded data and 2 is for recorded events.
- The date is set as Year/Month/Day.
- Time is set as Hour/Minute/Second
- NOGPS is used when the GPS signal has failed to connect. The GPS signal may become disconnected, depending on where the vehicle was while the recording was made.

PC Analysis Program Use

■ Preview Function

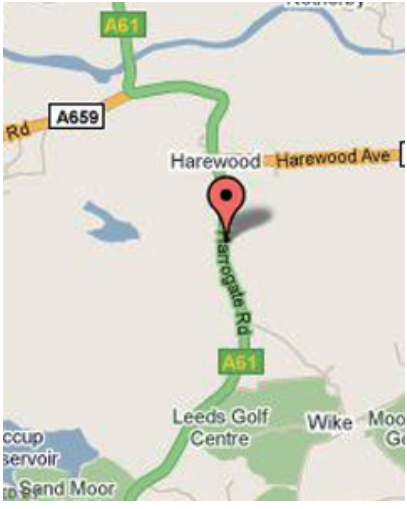
- When a file is selected, a preview of the first frame of the data is shown on the screen, as shown in the sample below. This helps to select a file with ease and less confusion. **When the file on the list is double clicked, the file will play.**

■ Auto-play Function

- After you double-click a file, the recordings will automatically and continuously play one after another.
The last file of the list is connected to the top and will automatically continue; when the last file is played it will return to the first file on the list. However, the (EVENT) and (NORMAL) folders are not continously connected with each other. Each folder has to be open separately.

Interworking with the map

- With the GPS data, the map shows the location of the vehicle while playing the recorded data.
- **The map is viewable only on the analyzer.**
- **Google map is used.**



PLAY / PAUSE / PREVIOUS FRAME / LATTER FRAME

- When the play button is pressed, it will replay the video file shown on the screen. **When selecting a file from the list, double click the file from the list to play the file.**
- When the pause button is pressed, the previewing data will be paused.
- When the previous frame and the latter frame button is pressed, it will move between frames within the file. It does not move from one file to another. To do so, pause the the file that is being viewed, and then use the frame buttons to move between frames.

BRIGHTNESS CONTROL

- Use the bar to set the brightness to help view the file.

SPEED METER

- While the file is being played, the speed meter will show the vehicle's speed that was collected by the GPS.

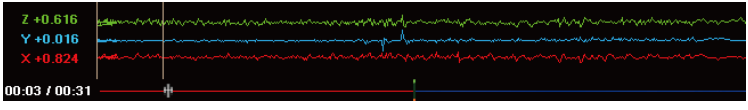
PC Analysis Program Use

G Sensor / Shock Sensor Graph

- The graph below shows impacts on the xyz axises of the vehicle.
  - X axis : measures and records impact from the front and back of the vehicle (From 0G to 3G is recorded)
  - Y axis: measures and records impact from the left and right sides of the vehicle (From 0G to 3G is recorded.)
  - Z axis: measures and records impact from the top and lower part of the vehicle (From 0G to 3G is recorded.)

- The bottom left shows the total time of the impact.

- Each impact will be noted as jolts or jerks in vertical lines within the axis. (Like a heart monitor)



PC Analysis Program Use

Converting to AVI file

- The data files in the SD card are Vision Drive files and will only work within VDAnalayzer program.

- To view the data on a regular PC without having the analysis program within the SD card, the VD file has be be converted to an AVI file.

- Pause the file where you want the conversion to take place on the previewing file.

- Press the AVI conversion button on the bottom right side, and then a window will pop up to have the file renamed.

- You may put any name you would like. There is no need to put .avi on the end.

- Press the play button again, and then the data being previewed will be converted from the point you specified.

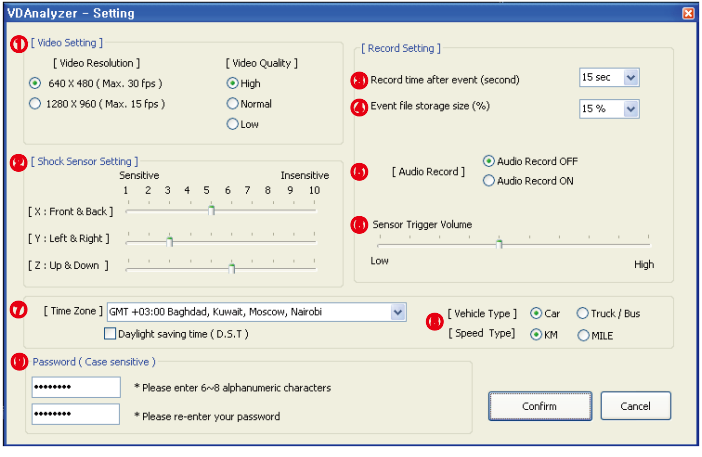
- When you press the pause button while the conversion is in progress, the conversion stops from that point.

- If the necessary codec is not available to convert the data into an avi file, it may not work on your PC or a notification will pop up saying you may need to download needed codec to proceed. In such cases, use Xvid-1.2.1-0412008.exe to install the needed codec, then restart the analyzer program to proceed again. **If the codec is already installed on the PC, there may be some difficulties if the codec is installed twice. So unless there is a notification for installing a codec, do not install.**

PC Analysis Program Use

■ Configuration

- The video resolution and quality settings can be configured.
- If the resolution is high, the file's size also becomes larger and will take more memory on the SD card.
- The sensor can be configured. If the number is larger on the sensor, the sensor becomes less sensitive and if the number is lower, the sensor will be heightened.
- The time setting for recording after the impact can be configured. The recording time prior to the impact is 10 seconds.
- If you set the % for the (EVENT) folder, the rest of the memory will be assigned to the (NORMAL) folder.
- The voice recording and the impact alert setting can be configured.
- New passwords can be set to be used for private or corporate use.



Warranty

- **The warranty is for 1 year from the date of purchase. If the product malfunctions on itself under normal use, you can have the product repaired .**

- **To apply for warranty, register your product with your information Only registered products will be submitted for repair or service.**

- **If the warranty period expires, repairs and services can be provided only if paid by the purchaser of the product.**

- **In below cases, the repairs may be subjected to payment by the user.**
  - **If the product has been remodelled or disassembled or has been damaged due to use against the product's normal usage**
  - **Damages due to environmental crisises such as earthquakes, thunderstorms, etc.**
  - **Using other cables that were not provided by the company and were not enclosed with the unit.**
  - **Dropping or damaging the product by fault of the user.**

- **Warranty repairs are available only in the country where the product is bought.**

Warranty Certificate

Warranty Certificate			
Product Name	VISIONDRIVE	**Model Name**	VD-3000
Purchase Date		**Serial Number**	
Retail Shop		**Warranty Period**	

If the product malfunctions after the 1 year warranty period expires, no service is provided under warranty. If the certificate does not have the date of purchase, the 1 year warranty is calculated by the serial number's production date plus an additional 1 month to calculate the 1 year warranty period.

- The Vision Drive company will follow Consumer Protection Act (1006-36) to give warranty to all the products sold to consumers in the available regions.
- A decline of the warranty coverage will be notified to the consumer after 14 days of the application. If the application is accepted, the coverage will be in full effect within 30 days.
- This product's warranty period is 1 year from the date of purchase.

All hardwares, softwares, design and logo of the product is copyrighted by the manufacturer of the product.
Copy, disassembly, remake and distribution without the manufacturer's consent is prohibited and will be enforced by all legal rights held by the manufacturer.

VISIONDRIVE™

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